

ABSTRACT OF THE DISCLOSURE

A method and apparatus for transmitting sounds which originate close to a site under study, while sharply attenuating sounds originating farther away. A reference transducer **40** is positioned as close as possible to the site under study.

5 Three or more satellite transducers **38D-G** are positioned on a circle **24** centered on the reference transducer, such that they divide the circle into equal arcs. The average signal of the satellite transducers, or a portion thereof, is subtracted from the signal of the reference transducer. The resulting difference signal may be amplified and/or filtered prior to being transduced to sound by speakers.

10 Subtraction of the signals results in a focusing effect. Sounds which originate close to the reference transducer are preserved, while those which originate farther away are sharply attenuated. The focusing effect increases modestly with frequency. Sounds which originate at predictable locations in relation to the transducers are eliminated almost completely, a feature which
15 enables the user to listen to the sounds of two juxtaposed sound sources, one at a time.

The method disclosed offers greater distance selectivity at all frequencies than is possible using the prior art, and is suitable for use when the sounds to be discriminated are separated from the sensing means by an interface.